REMARKS

I. Claim Rejections – 35 U.S.C. § 112

In the office action dated February 9, 2009 the Examiner rejected claims 12, 13, and 14 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

The Examiner argued with respect to claims 12 and 13, the limitation recites "The system of claim 10 wherein said particular dimensional order comprises a three-dimensional order", and "The system of claim 12 wherein said transformation module further comprises a compensation module for reducing said three-dimensional order to a two-dimensional order using standard International Color Consortium (ICC) framework". The Examiner further argued claim 13 recites the limitation "said transformation module" in claim 12. The Examiner argued there is insufficient antecedent basis for the limitation in the claim and cites MPEP 706.3(d).

The Applicant respectfully directs the Examiner's attention to the amendment to claim 14. The Applicant has removed the word "transformation" and replaced it with the word "compensation". The Applicant respectfully asserts there is now sufficient antecedent basis for the limitation of the claim. The Applicant further asserts the Examiner has not offered any explanation as to why claim 14 was rejected under 35 U.S.C. § 112. Per the Examiner's citation to MPEP 706.3(d) the Applicant respectfully asserts it is the Examiner's burden to explain why a given claim has been rejected. Without further information, the Applicant respectfully asserts the claim meets the requirements of 35 U.S.C. § 112. The Applicant therefore respectfully requests the rejections based on 35 U.S.C. § 112 be withdrawn.

II. Claim Rejections – 35 U.S.C. § 103

Requirements for Prima Facie Obviousness

The obligation of the examiner to go forward and produce reasoning and evidence in support of obviousness is clearly defined at M.P.E.P. §2142:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

M.P.E.P. §2143 sets out the three basic criteria that a patent examiner must satisfy to establish a *prima facie* case of obviousness:

> 1. some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
>
> 2. a reasonable expectation of success; and
>
> 3. the teaching or suggestion of all the claim limitations by the prior art reference (or references when combined).

It follows that in the absence of such a *prima facie* showing of obviousness by the Examiner (assuming there are no objections or other grounds for rejection), an applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443 (Fed. Cir. 1992). Thus, in order to support an obviousness rejection, the Examiner is obliged to produce evidence compelling a conclusion that each of the three aforementioned basic criteria has been met.

Applicant further notes that the U.S. Supreme Court ruling of April 30, 2007 (*KSR Int'l v. Teleflex Inc.*) states:

> "The TSM test captures a helpful insight: A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art. Although common sense directs caution as to a patent application claiming as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does."
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> "To facilitate review, this analysis should be made explicit."

The U.S. Supreme Court ruling states that it is important to identify a *reason* that would have prompted a person to combine the elements and to make that analysis *explicit*.

Shimizu in view of Mahy

Claims 1, 3-5, 10-12, 14-16, and 19-22 stand rejected under 35 USC 103(a) as being unpatentable over Shimizu et al, US 7,167,277 (hereinafter Shimizu), in view of Mahy, US 5,832,109 (hereinafter Mahy).

Regarding claims 10 and 11, the Examiner argued that Shimizu discloses a system (citing col. 28, lines 5-47) comprising: a plurality of color values corresponding to CMY color data value (citing col. 2, lines 28-59 and Fig.5, col.10, lines 10-35) automatically provided as input to an image processing device (citing Figs. 5, 7, 18, and 19; col. 11, line 65 - col. 12, line 19), wherein said image processing device is under a control of a particular dimensional order (arguing processing in three-dimensional arrays, citing col. 13, lines 51-65).

The Examiner further argued that a color sensor (arguing measurement of L*a*b* values indicates a color sensor must be used for color measuring, citing col. 11, lines 65-67 and col. 12, lines 1-19) for dynamically determining which color value among said plurality of color values has attained a gamut limit (arguing Shimizu discloses a flow chart or algorithm which has a steps to determining shortest distance from boundary of color gamut in Figs. 7 and 9, judging whether color value is near the color gamut boundary which is actively or dynamically performed, citing col. 13, lines 5-37 and col. 15, lines 41-66) is taught by Shimizu.

The Examiner also argued that Shimizu teaches a color sensor (arguing measurement of L*a*b* values indicates that a color sensor must be used for color measuring, citing col. 11, lines 65-67 and col. 12, lines 1-19) for dynamically determining which color value among said plurality of color values has attained a gamut limit (arguing Shimizu discloses a flowchart or algorithm which has steps to determine shortest distance from boundary of color gamut, citing figs. 7 and 9, judging whether color value is

near the color gamut boundary which is actively or dynamically performed, citing col. 13, lines 5-37 and col. 15, lines 41-66); an iterative controller (arguing "iterative controller, a controller processes an iteration loop(s); Shimizu discloses an example of the controller of a printer processes color value for each pixel, citing col. 1, lines 24-35, and the process of figs. 7, 12 and 13 for generating a color conversion table for printers for converting L*a*b* values to CMY values indicate multiple iteration processes, citing col. 11, line 60 to col. 12, line 42); and a transformation module (arguing conversion table) provided inside said iterative controller (citing col. 11, line 60 to col. 12, line 42).

The Examiner admitted that Shimizu fails to teach a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, thereby providing improved control for colors that are located external to said gamut. The Examiner, however, argued that Mahy teaches such a transformation module, arguing Mahy teaches that a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit (arguing Mahy discloses an example mathematical model of 3-ink process with one color value C1 reaches its limit at 0, dimensional order of 3-ink process is automatically reduced to a 2-ink process because an n-ink process is completely characterized by its colorant gamut with a number of colorant limitations; citing col. 14 lines 50-64 and col. 1 lines 49-58), thereby providing improved control for colors that are located external to said gamut (citing col. 7, lines 45-48).

The Examiner therefore asserted that it would have been obvious for one skilled in the art to modify Shimizu to include a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, thereby providing improved control for colors that are located external to said gamut, taught by Mahy, because it helps to control the L*a*b value of a certain color which is outside a target color

gamut, and further the mathematical model provided by Mahy could be implemented for one another with predictable results.

The Applicant respectfully disagrees with this assessment for several reasons. First, the Shimizu reference does not mention "automatic input" in col. 11, line 65 - col. 12, line 19. In fact, the cited material is actually an explanation of FIG. 7, which specifically does not require any input. Col. 12 lines 44-46 states "... L, a and b, which are variables indicating the grid numbers of a grid point in an L*a*b* space, are all initialized to '0'". There simply is no input needed in this example because the values are initialized at 0. Indeed, there is absolutely no mention of input, much less automatic input, anywhere in the cited language. The Examiner reasoned that since the input was not manually performed, it must be automatic. The Applicant respectfully asserts this statement fails to address the deficiencies in the Shimizu reference highlighted by the Applicant; namely the cited material does not require any input since the space is initialized to 0, and the referenced material fails to discuss, input in any capacity. It follows that in order to establish automatic input, the Shimizu reference must discuss input and also teach that the input be preformed automatically. The Examiner had provided reference to a discussion that does not include either of these elements and cannot possibly teach the automatic input limitation of Applicant's claimed invention.

In addition, the process shown in flowchart 7 is for the creation of a color conversion table. Thus, assuming that this does teach automatic input (which it does not), the Examiner still fails to establish why this particular feature would be valuable for use in the present invention. In other words, there is absolutely no need for a color conversion table in the present invention and the automatic input of colors via a color conversion table would not improve the present invention at all. The Examiner has in effect, cited something from the reference which is not used or needed in the present invention to teach the limitations of the present invention. The present invention does not claim automatic input via a color conversion table. Thus,

the teaching of a color conversion table does not read on the present invention.

Second, while Shimizu discusses "three-dimensional arrays," the Applicant respectfully disagrees that this teaches control of a particular dimensional order. The language of Shimizu clearly limits the reference to three-dimensional orders. As is made clear by the language of claim 10 and Applicant's specification, the "particular order" is not limited to the three-dimensional case. Applicant's abstract specifically notes that dimensions are not limited and may include the two-dimensional case as well. The Examiner has failed to offer any explanation of how a three-dimensional order teaches or suggests the more broad limitation of the presently rejected claim 10, a particular dimensional order.

It is note worthy that the Examiner appears to have withdrawn the previous argument regarding the above "particular dimensional order" limitation, that this language was not included in the claims, yet the rejection stands. Further, the Examiner has failed to cite any new material in support of the rejection of this claim limitation. The Applicant respectfully asserts that if the Examiner no longer believes the previous basis for rejection is valid, the feature now constitutes an element of the present claims not taught or suggested by the Shimizu reference. Because the limitation that a "particular order" is specifically recited in the rejected claims and in light of the fact that the Examiner has failed to cite any material otherwise rejecting this limitation the Applicant respectfully asserts claim 10 is not obvious.

The Applicant also respectfully disagrees that the use of a color sensor to determine which color has attained a gamut limit has been taught. The Examiner cites col. 11, lines 65-67 and col. 12, lines 1-19 of Shimizu arguing that language of Shimizu this teaches use of a color sensor. This relates to the adoption by Shimizu of another patented method for creating color conversion tables. The Applicant is not asserting that the use of a color sensor is unique to the present invention. Indeed, color sensors are most assuredly used in many different types of applications. Rather, the Applicant is using the color sensor to determine which color value among the plurality

of color values has reached the gamut limit, and not to create a color conversion table. In other words, in Applicant's invention, the color sensor itself is utilized to determine which color value has attained the gamut limit. The present claim does not include or consider color conversion tables in any capacity. Indeed, the reference highlights the fact that the present claim is different because no table is created.

The Examiner again appears to misunderstand the Applicant's argument. The Examiner continues to cite material in the reference that teaches the creation of a color conversion table. The present invention never teaches discusses, considers, describes, or even contemplates a color conversion table in any capacity. The color conversion table does not read on the present invention.

Finally, the Applicant believes that the Examiner's rejection underscores the differences between the present invention and the reference. The Examiner first argues that the creation of the color conversion table indicates a color sensor is used for measuring color. Note, the Applicant is claiming the color sensor is used to determine which color has attained gamut limit. The Examiner then cites an entirely different section of the reference arguing this material teaches an algorithm to determine distance from the gamut boundary. Thus, the Examiner has firmly established that two separate elements (the color conversion table serving to measure color, and the algorithm or flowchart) are operated independently. Assuming both these elements do teach what the Examiner suggests (which the Applicant still does not accept) neither teaches nor suggests an independent color sensor used to perform both functions. As such, with regard to this limitation of the present invention the Examiner has failed to establish prima facie obviousness.

Absolutely nothing about the material contained in col. 1, lines 24-35 offers any teaching or suggestion even remotely related to an iterative controller as described in the present claims. The material actually discusses the way color information is transferred to a printing device and subsequently to a piece of paper. "Iterative" is defined at

www.dictionary.com as "Characterized by or involving repetition, recurrence, reiteration, or repetitiousness". Where in the material cited is there any indication of anything "involving repetition, recurrence, reiteration or repetitiousness"? A computer telling a printer to print on a piece of paper and the printer in turn printing on a piece of paper is not an iterative process. The Applicant respectfully asserts the reference fails to discuss an iterative controller in any capacity.

Likewise, the Examiner argued that the conversion table teaches a transformation module and that "...thus the conversion table is indeed the controller". Taking the Examiner's words verbatim that the conversion table teaches both the transformation module (which the Examiner later admits is not taught by Shimizu, see discussion below) and the controller, this clearly establishes that the Shimizu reference fails to teach the limitation of the claim that a transformation module is provided <u>inside</u> the iterative controller. After all, the iterative controller and transformation module, according to the Examiner, is the same thing. The Applicant has amended claim 10 to more clearly highlight the fact that the iterative controller and transformation module are not the same element but rather two separate elements one contained within the other. As such, following the Examiner's reasoning, it is impossible the reference teaches both an iterative controller and a transformation module contained within said iterative controller.

The Examiner has <u>repeatedly admitted Mahy simply constitutes a statement of the fact that a mathematical space of n dimension's can be defined by its boundaries and that said boundaries have a dimension n-1</u>. This surely does not teach, as the Examiner suggests, <u>using a transformation module</u> to determine colors at or beyond a gamut limit. The language cited by the Examiner is, in essence, a scholarly lecture on the meaning of "color gamut" and the geometric properties of mathematical spaces followed by a conclusion that this language teaches or suggests use of a transformation to determine colors that have reached a gamut limit. The fact that the word "transformation" appears in the reference is <u>not</u> sufficient to <u>teach</u> a <u>transformation module</u> as taught by Applicant's invention. In the context of

Mahy, "transformation" is only being used as part of the definition of a color gamut. The Applicant has claimed a transformation module. Mahy simply fails to teach a module.

Finally, per the decision in KSR Int'l v. Teleflex Inc., it is not enough that the Examiner identify all elements of Applicant's invention in past references (which the Applicant suggests the Examiner has still failed to do); the Examiner must also explicitly explain the reason one of ordinary skill in the art would have combined the referenced inventions in the way they are taught in Applicant's invention. However, the Examiner has failed to offer any citation which explains the motivation for the combination of Shimizu and Mahy as a means for providing each and every claim limitation of Applicant's claims. The Examiner has failed to cite any material to explain how the combination of elements supposedly taught by Mahy would improve the Shimizu invention. Some actual citation to the references to explain the motivation for their combination is necessary under the *KSR Int'l* holding.

Further, the Examiner has still failed to explain how a transformation module for automatically reducing a particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, which the examiner claimed is taught by Mahy, would improve the Shimizu invention. The Examiner claims in the response to this argument that the three basic criteria of prima facie obviousness have been established. However, the Examiner has failed to make that analysis specific. *KSR Int'l v. Teleflex Inc.*) states:

> "The TSM test captures a helpful insight: A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art. Although common sense directs caution as to a patent application claiming as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does."
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> "To facilitate review, this analysis should be made explicit."

As evidence, consider that the Examiner specifically stated Shimizu fails to teach a transformation module. This is because the Shimizu invention functions without the need for a transformation module. Thus, at

the very least, it is the Examiner's burden to explain, through citation to the references, how stuffing a transformation module into the already functioning Shimizu invention would improve that invention. Yet the Examiner hasn't offered any citation of any kind. The Examiner has only explained the result of such a combination (improved control of certain L*a*b colors) without explaining how the combination would yield such a result. Likewise, the Examiner claims Mahy teaches a transformation module for automatically reducing a particular dimensional order (which it does not). Yet combining that idea with Shimizu reference would not yield any improvement.

The method for achieving the color conversions described in Shimizu is accomplished using a color conversion table, and by the Examiner's admission does not require automatically reducing the particular dimensional order. Once again, at the very least, the Examiner must explain some motivation for such a combination in light of the overwhelming evidence that forcing the Mahy and Shimizu inventions together would not improve either invention. In other words, the present invention transcends the simple mashing of Shimizu and Mahy. The present invention is a novel, non-obvious creation not made obvious by simply combining Shimizu and Mahy.

Further, the Examiner claims the combination could yield predictable results without citing anything explaining how or what that predictable result would be. The Applicant respectfully asserts the predictable result would be the inclusion of a useless transformation module in an already functioning invention yielding no improvement to either the Shimizu or Mahy invention.

Based on the arguments presented above the Applicant respectfully requests the rejection of claims 10 and 11, based on 35 USC 103, be withdrawn.

Regarding claim 12, the Examiner argued "Shimizu teaches wherein said particular dimensional order comprises a three-dimensional order" (arguing "color conversion table is used to store the calculated three-dimensional arrays of C[L][a][b], M[L][a][b] and Y[L][a][b] citing col. 12, lines 30-42).

The Applicant notes if an independent claim is not obvious any claim dependent on that claim is also not obvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). The Applicant respectfully submits Claims 3 and 12 are dependent claims. Therefore, based on the arguments made in favor independent claim 10, the Applicant requests the rejection of claim 12 be withdrawn.

Regarding claims 15 and 16 The Examiner admitted Shimizu does not teach a transformation module where said module further comprises a transformation module for reducing said three-dimensional order to a one dimensional order.

The Examiner argued Mahy teaches such a transformation (arguing Mahy discloses a mathematical model showing how a 3-dimensional order is reduced to 1-dimensional order, citing col. 12, lines 36-64).

Therefore, the Examiner argued it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Shimizu to include a transformation module that reduces a three-dimensional order to said one-dimensional order as taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (citing col. 4, lines 17-43). Therefore, by combining Shimizu with Mahy, a predicable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. The material cited by the Examiner absolutely fails to discuss a transformation module in any capacity. Further, the material does offer a very broad generalized description of some of the qualities and properties of color gamut boundaries and the Neugebauer model. This literally has no relation to a transformation <u>module</u> that specifically takes a three-dimensional order to a one-dimensional order. The Applicant respectfully reminds the Examiner the reference must actually teach or suggest each and every specific limitation of the claim in order to establish prima facie obviousness. A simple description of the properties of color gamut boundaries and the fact that the Neugebauer equations "immediately reveal that a 1-ink process transforms onto a

straight line in color space" (see col. 12, lines 63-64) do not teach any of the limitations of claims 15 and 16. The reference fails even to discuss a concept as foundational as a starting order of three-dimensions transformed to a finishing order of one dimension. The word "transform" does appear but is not related to the reduction of a three-dimensional order to a one-dimensional order.

With respect to the first prong of the aforementioned Prima Facie Obviousness test, the Applicant reminds the Examiner that the language of the references may not be taken out of context and combined then without motivation, in effect producing the words of the claims (and sometimes, not even the words or concepts of the claims), without their meaning or context.

Therefore, the Applicant argues all the limitations of claims 15 and 16 are not taught or suggested by Mahy and that claims 15 and 16 are therefore not obvious. The Applicant respectfully requests, in light of the above argument, that the rejection of claims 15 and 16, based on 35 USC 103, be withdrawn.

Regarding claim 19, The Examiner argued Shimizu teaches a color rendering device associated with a transformation module wherein said transformation module is integrated with said image processing device (citing Figs. 6-7 and 18-19, a color conversion table for printer for converting L*a*b values to CMY values, citing col. 60 to col. 12, line 19).

The Applicant respectfully disagrees with this assessment. The Applicant concedes Shimizu does teach a system in which a color-rendering device is present. This is made clear in Fig. 19 and col. 28 lines 53-55. However, the key feature of claim 19 is that the transformation module is integrated with the image processing device. The Shimizu reference makes no mention of such integration. The material cited by the Examiner actually teaches away from such integration as it describes the printer <u>creating</u> a color conversion table. Aside from the fact that the color conversion has no place in the present invention and would serve no purpose in the present invention, a printer printing a color conversion table does not teach integration of a color rendering device and a transformation module.

Further, Fig. 19 teaches away from the integration of the transformation module with a color rendering device. The color rendering device in that figure is specifically diagramed external to the other elements. Thus, rather than teaching integration, the Shimizu reference is specifically teaching away from the limitations of claim 19.

In addition, col. 28 lines 53-55 specifically state "FIG. 19 explains the general use form of a color conversion table ...". A color conversion table is not the same as a transformation module. In fact, no mention is made of a transformation module, as taught by Applicant's invention. Thus, it is impossible that all the limitations of claim 19 are taught or suggested by the Shimizu reference. Therefore, the Applicant respectfully requests that the rejection of claim 19, based on 35 USC 103, be withdrawn.

Regarding claim 20, The Examiner argued Shimizu teaches an iterative controller whose iterative output is input to said color rendering device (arguing Input/Output Device 25 of Fig. 18 and Printer 32 of Fig. 19), such that said iterative output of said iterative controller reflects a plurality of compensated color values requiring correction for rendering variations thereof (arguing "the process of color transform and compensation is performed for each color value data of each pixel by the controller of a printer, citing col. 1, lines 30-40; arguing "thus the processes of figs 5-16, must repeated for each pixel color value data).

The Applicant respectfully disagrees with this assessment. First, in the previous office action the Examiner asserted that "CPU 20" of Fig. 18 or "PC 31" of Fig. 19 teach or suggest an iterative controller. It appears the Examiner is no longer arguing this is the case. However, the Examiner has not replaced that argument with any replacement argument. As such, the limitation of an iterative controller from the presently rejected claim is not taught or suggested by the reference (as no citation is offered). Alternatively, the Applicant respectfully asserts the arguments presented in favor of claim 10 regarding an iterative controller apply equally against this rejection of claim 20.

The cited language col. 1 lines 30-40 in the Shimizu reference, fails to mention, even once, iteration in any form. The material actually describes the very basic printing principle that color information for each pixel is provided to the printer which in turn produces that color on paper. Nothing about this suggests an iterative method in any capacity. While the Applicant agrees that each pixel must be given a color that still does not suggest an iterative method. Rather that is a typical "one-shot" conversion used for each pixel. Indeed the general process described in Shimizu of a color conversion table is not iterative. Use of such a table is more analogous to the direct method since it is used for a simple "one-shot" conversion.

Based on the fact that the word "iterative" is not even mentioned, much less an iterative process described by the reference, the reference does not teach or suggest all the limitations of claim 20. Therefore, the Applicant respectfully requests that the rejection of claim 20, based on 35 USC 103, be withdrawn.

Regarding claim 21, the Examiner argued Shimizu teaches that the color rendering device comprises a printer (citing Printer 32 and Fig. 19). The Applicant agrees with this assessment. However, the Applicant refers the Examiner to the above argument regarding non-obvious dependent claims (In re Fine). In light of this argument, the Applicant respectfully requests that the rejection of claim 21, based on 35 USC 103, be withdrawn.

Regarding claim 22, the Examiner argued Shimizu teaches that the color rendering device comprises a photocopy machine (arguing Input/Output device 25 of Fig. 18).

The Applicant respectfully disagrees with that assessment. While the Applicant realizes an input/output device might include a photocopy machine, it is important to note that <u>a photocopy machine is never mentioned in the Shimizu reference</u>. It is further worth noting that I/O devices include an extraordinarily large number of possible devices. Thus, the specificity of this claim is not considered, taught or suggested by the Shimizu reference. This is further evidenced by the constant reference in the Shimizu reference to printers but the lack of reference to photocopy machines.

Finally, Fig. 18 shows "a hardware environment needed to realize the method of the present invention by causing a computer to execute a program (col. 9, lines 7-10). In other words, Fig. 18 illustrates a computer system's hardware. As such, element 25 is not a photocopy machine. In fact, "input/output device 25 ... includes a display, keyboard, mouse, etc. and is used to input commands or data needed..." (col. 28, lines 36-38). Element 25 in Shimizu clearly does not teach or suggest a photocopy machine.

To establish prima facie obviousness the Examiner is required to specifically cite and explain how each and every feature of the challenged invention is taught or suggested by the reference. Since nothing in any of the references suggests the use of a photocopy machine in any capacity, the Applicant respectfully asserts the Examiner has failed to establish prima facie obviousness. The Applicant respectfully requests that the rejection of claim 22, based on 35 USC 103, be withdrawn.

Regarding claim 1, The Examiner noted claim 1 is directed to a method claim that meets the 35 U.S.C. 101 statutory requirements. The Applicant notes this statement and appreciates the Examiner's candid assessment of the inventions patentability under 35 U.S.C. 101.

The Examiner argued Shimizu discloses a method comprising: a plurality of color values (such as L255*, a255* and b255* value, corresponding to CMY color data value citing col. 2, lines 28-59 and Fig.5, col.10, lines 10-35) as input to an image processing device (arguing "L*a*b* values based on the measurement of a patch outputted from the printer corresponding to CYM values are as input initial value; since the L*a*b values obtained and inputted in the process are not manually performed, thus data is automatically provided as input to the image processing device, citing Figs. 5, 7, 18, and 19; col. 11, line 65 - col. 12, line 19), wherein said image processing device is under a control of a particular dimensional order (arguing processing in three-dimensional arrays, citing col. 13, lines 51-65); dynamically determining which color value among said plurality of color values has attained a gamut limit (arguing Shimizu discloses a flow chart or algorithm which has a steps to determining shortest distance from boundary

of color gamut in Figs. 7 & 9, judging whether color value is near the color gamut boundary which is actively or dynamically performed, citing col. 13, lines 5-37 and col. 15, lines 41-66); transforming (arguing "converting") said particular dimensional order of said color (arguing "three dimensional color arrays calculation or conversion, citing Fig. 7, col. 13, lines 51-65) which was determined to have attained said gamut limit (arguing "in the third embodiment, judging the distance of a point to be converted in the direction of outward normal to border line of the color gamut, Figs 8A-B, col. 14, lines 57-67), in response to dynamically determining which color value among said plurality of color values has attained gamut limit (arguing "refer to the process of Fig. 7, step 14 dynamically determine the shortest distance between the point to be converted and the color gamut boundary, col. 13, lines 20-50).

The Examiner admitted Shimizu fails to teach thereafter automatically reducing said particular dimensional order through use of a dedicated gamut mapping function allowing for an improved estimate of said color based on said reduced dimensional order, thereby providing improved control for colors that are located external to said gamut and maintaining said color's hue. The Examiner, however, argued that Mahy teaches automatically reducing said particular dimensional order though use of a dedicated gamut mapping function (arguing " a surface of colorant in a three-dimensional color space is mapped to the 2-dimensional color gamut boundaries, citing col. 12, lines 35-49) allowing for an improved estimate of said color based on said reduced dimensional order (arguing Mahy discloses an example mathematical model of 3-ink process with one color value c1, reaches its limit at 0, dimensional order of 3-ink process is automatically reduced to 2-ink process because an n-ink process is completely characterized by its colorant gamut with a number of colorant limitations, citing col. 14, lines 50-64 and col. 1, lines 49-58); and thereby providing improved control for colors that are located external to said gamut (arguing "Mahy explored the method to improve control of colors that are located outside of the gamut, classes 2

and 4, citing col. 16, line 26 to col. 17, line 34) and maintaining said color's hue (citing col. 21, lines 10-31).

The Applicant respectfully disagrees with this assessment. First, the Applicant respectfully asserts the arguments above made in favor of claim 10 apply equally against the rejection of claim 1. In the interest of brevity those arguments are not repeated. In summary, the Applicant asserts Shimizu fails to teach: <u>automatically</u> providing a plurality of color values, that the image processing device is under control of a <u>particular dimensional order</u>, dynamically determining which color has attained a gamut limit.

The Examiner argued Shimizu teaches the use of a dedicated gamut mapping function. Where in the material cited by the Examiner is there any discussion of <u>a dedicated gamut mapping function?</u> The material cited by the Examiner does use the word "map" and "gamut". Beyond the fact that the references share these words with the reference there is absolutely no teaching of a <u>dedicated</u> gamut mapping <u>function</u>. Instead the reference discusses the mathematical phenomena that in a 3D color space, surfaces of the space can be described in 2D space. In addition, the Applicant has amended claim 1 to more clearly explain the role of the dedicated gamut mapping function. This does not constitute new matter as it is a limitation fully described in the specification. The Applicant asserts based on these arguments and amendments the limitation of a dedicated gamut mapping function is not taught or suggested by the Mahy reference.

Additionally, the Examiner argued Mahy teaches "maintaining said color's hue", citing col. 21, lines 10-31. First, the words "maintained constant hue" do not appear in the reference as the Examiner suggests. Instead of evaluating the meaning of the material cited, the Examiner has simply found the word "hue" in the reference and therefore concluded independently that the Applicant's claim has been taught. The fact that this discussion includes the word hue does not mean that the reference teaches the specific limitations of the Example. As evidence consider that fact that the Examiner claimed the dedicated gamut mapping function, taught at col. 12 (which it is not), is the specific function that must be used to maintain

constant hue. By citing col. 21 as teaching "maintained constant hue" the Examiner highlights the fact that the dedicated mapping function (pretending such a mapping function was taught by Mahy) is not used to maintain constant hue.

With respect to the first prong of the aforementioned Prima Facie Obviousness test, the Applicant reminds the Examiner that the language of the references may not be taken out of context and combined then without motivation, in effect producing the words of the claims (and sometimes, not even the words or concepts of the claims), without their meaning or context. Based on the arguments presented above the Applicant respectfully requests the rejection of claim 1, based on 35 USC 103, be withdrawn.

Regarding claim 2, the Examiner argued Shimizu discloses wherein a color sensor (arguing "measurement of L*a*b* values indicates that a color sensor must be used for color measuring, citing col. 11, lines 65-67 and col. 12, lines 1-19) is used in dynamically determining which color value among said plurality of color values has attained a gamut limit (arguing "Shimizu discloses a flow chart or algorithm which has a steps to determining shortest distance from boundary of color gamut in Figs. 7 & 9, to obtain CMY value corresponding to an L*a*b* value based on the measurement value of a patch outputted from the printer; thus the distance between a point whether inside or outside the gamut and the boundary of gamut must be dynamically determined utilizing a color sensor, citing col. 11, line 60 to col. 12, line 5).

The Applicant respectfully disagrees with this assessment. Per the Arguments made in favor of claim 10 above, the Applicant asserts the reference does not teach or suggest the use of a color sensor in the way described in the present invention. First, the Examiner cites col. 11, lines 65-67 and col. 12, lines 1-19 of Shimizu arguing this teaches use of a color sensor. This relates to the adoption by Shimizu of another patented method for creating color conversion tables. The Applicant is not asserting a color sensor is unique to the present invention. Indeed, color sensors are most assuredly used in many different types of applications. Rather, the Applicant is using the color sensor to determine which color value among the plurality

of color values has reached the gamut limit, and not to create a color conversion table. In other words, in the present invention the color sensor itself is used to determine which color value has reached the gamut limit. The present claim does not include or consider color conversion tables in any capacity. Indeed, the reference highlights the fact that the present claim is different because no table is created.

The Examiner again appears to misunderstand the Applicant's argument. The Examiner continues to cite material in the reference that teaches the creation of a color conversion table. The present invention never teaches discusses, considers, describes, or even contemplates a color conversion table in any capacity. Discussion of a color conversion table with reference to the current invention has no applicability.

Finally, the Applicant believes the Examiner's rejection underscores the differences between the present invention and the reference. The Examiner first argued the creation of the color conversion table indicates a color sensor is used for measuring color. Note, the Applicant is claiming the color sensor is used to determine which color has attained gamut limit. The Examiner then cites an entirely different section of the reference arguing this material teaches an algorithm to determine distance from the gamut boundary. Thus, the Examiner has firmly established that two separate elements (the color conversion table serving to measure color, and the algorithm or flowchart) are operated independently. Assuming both these elements do teach what the Examiner suggests (which the Applicant still does not accept) neither teaches or suggests an independent color sensor used to determine which colors have attained gamut limit. As such, with regard to this limitation of the present invention the Examiner has failed to establish prima facie obviousness.

Regarding claim 3, the Examiner stated the claim recites identical features to claim 12. As such, the Applicant respectfully asserts the arguments made in favor of claim 12 apply equally to the rejection of claim 3. The Applicant respectfully requests the rejection of claim 3 be withdrawn.

Regarding claim 4, the Examiner stated the claim recites identical features to claim 13. As such, the Applicant respectfully asserts the arguments made in favor of claim 13 apply equally to the rejection of claim 4. The Applicant respectfully requests the rejection of claim 4 be withdrawn.

Regarding claim 5, the Examiner stated the claim recites identical features to claim 15. As such, the Applicant respectfully asserts the arguments made in favor of claim 15 apply equally to the rejection of claim 5. The Applicant respectfully requests the rejection of claim 5 be withdrawn.

Regarding claim 9, the Examiner argued Shimizu teaches a method, comprising: automatically providing a plurality of color values as input to an image processing device (arguing "L*a*b* values based on the measurement of a patch outputted from the printer corresponding to CYM values are as input initial value; since the L*a*b* values obtained and inputted in the process are not manually preformed, thus data is automatically provided as input to the image processing device citing Figs. 5 & 7 and 18 & 19, col. 11, line 65 to col. 12 lines 19), wherein said image processing device is under a control of a three-dimensional order (citing S21 of Fig. 7 and col. 12, lines 30-42); dynamically determining utilizing a color sensor (citing col. 11, lines 65-67 and col. 12, lines 1-19 and col. 11, line 60 to col. 12, line 5) and color among a plurality of colors has attained said gamut limit (citing Figs. 6A-B and 8A-B, col. 14, lines 39 – col. 16, line 34), wherein said determined color is comprised of a plurality of colors cyan, magenta, and yellow (citing s21 of Fig. 7, col. 11, line 65 – col. 12, line 19).

The Examiner admitted Shimizu does not teach that transforming said three dimensional order in response to dynamically determining which color among said plurality of three colors, cyan, magenta, and yellow has attain said gamut limit; and automatically reducing said three dimensional order thereby providing improved control for colors that are located external to said gamut.

The Examiner argued Mahy teaches transforming said three-dimensional order, in response to dynamically determining which color value among said plurality of three color values has attained said gamut limit

(citing col. 14, lines 34-64 and col. 1, lines 49-58); and automatically reducing said three-dimensional order, thereby providing improved control for colors that are located external to said gamut (citing col. 12, lines 36-64).

The Examiner argued having a system of Shimizu and then given the well-established teaching of Mahy, it would be obvious to one skilled in the art to modify the service portal system of Shimizu to include transforming said three-dimensional order, in response to dynamically determining which color value among said plurality of three color values has attained said gamut limit and automatically reducing said three-dimensional order, thereby providing improved control for colors that are located external to said gamut as taught by Mahy since doing so would improve the control of L*a*b value of a certain color which is outside a target color gamut, and further the mathematical model provided by Mahy could be implemented for one another with predictable results.

The Applicant respectfully disagrees with this assessment. The Applicant respectfully asserts the previous arguments made in favor of claims 1 and 10 apply equally against the Examiner's rejection of claim 9. In the interest of brevity those arguments are not repeated.

In addition, the Applicant respectfully disagrees col. 11, line 65 to col. 12, line 19 teaches the limitation that the colors that are determined beyond the gamut limit are comprised of cyan, magenta and yellow. Once again, it is not enough that the reference discusses the colors, cyan, magenta, and yellow. In order to establish prima facie obviousness it is necessary to show such colors were those dynamically determined to be beyond the gamut limit. As the Examiner will note, the material cited is diametrically opposite to this limitation. The cited material actually describes a color conversion table for converting L*a*b* colors to CMY values, <u>regardless of their location in or outside of the color gamut</u>. The reference goes on to specify a second method is used to determine if colors are inside the gamut, <u>and is specific that those colors include L*a*b* colors not CMY colors.</u> Thus, the reference actually teaches directly away from the limitations of the present claims. The

Applicant therefore respectfully request the rejection of claim 9 be withdrawn.

Shimizu in view of Mahy and further in view of Terekhov

Claim 6 stands rejected under 35 USC 103(a) as being unpatentable over Shimizu in view of Mahy and further in view of Terekhov (US2004/0096104).

Regarding claim 6, the Examiner admitted Shimizu does not disclose wherein a ray-based approach consisting of a ray being drawn from a desired color to a point on a neutral axis through said gamut limit is used to perform said gamut mapping. The Examiner argued Terekhov teaches these limitation (citing figs 8A, 8B and 9, arguing "a ray-based approach consisting of a ray from L*-axis, a neutral axis through gamut limit is used for gamut mapping, Par. 63").

The Examiner argued it would have been obvious to have modified Shimizu and Mahy to include the above teachings of Terekhov to improve color mapping of gamut because gamut mapping requires coordinates of the points having the maximal chromaticity for a current gamut boundary (citing paragraph 71).

The Applicant respectfully disagrees with this assessment. The Examiner cites Figs. 8A, 8B and 9 as teaching the ray based approach described in claim 6. However, the specification of that invention states specifically that Fig. 8A illustrates distribution rays in a plane, Fig. 8B illustrates points where those rays intersect the boundary of the device gamut, and Fig. 9 illustrates an example of ray-triangle-inclusion. Nothing in this description suggests the approach of drawing a ray from a point <u>through a neutral axis</u> as is specifically claimed in the present invention. Indeed the Examiner's statement that the approach consists of a ray "<u>from</u> L*-axis ..." <u>highlights the fact that in the reference the ray originates at the axis and not at the desired color</u>. As such, the Examiner's own words have established

the reference fails to teach or suggest a ray based approach where the ray originates at a desired color and is traced through a neutral axis.

Further, the Examiner argued the combination of Shimizu and Mahy with Terekhov would yield the predictable result of gamut mapping. However, the Examiner previously argued that Mahy teaches a gamut mapping function. Pretending Mahy had established a gamut mapping function, there is no motivation to substitute that function for another. This is particularly true when one considers the fact that Shimizu does not use a gamut mapping function at all, which means there is absolutely no reason to believe applying a gamut mapping function to that already functioning device would yield any practicable result. Simply stating that including a new element in an old invention will work is not enough to establish obviousness. The Examiner must further explain why such a combination would be obvious. In this case, no person skilled in the art would expect any improvement on the Mahy or Shimizu inventions by haphazardly including a ray based gamut mapping function.

The Applicant respectfully requests the rejection of claim 6, based on 35 USC §103 be withdrawn.

Shimizu in view of Mahy and Terekhov and further in view of Holub

Claims 7 and 8 stand rejected under 35 USC 103(a) as being unpatentable over Shimizu in view of Mahy and Terekhov and further in view of Holub (US 6,750,992).

Regarding claim 7 and 8, the Examiner admitted Shimizu, Mahy, and Terekhov do not teach wherein said color sensor comprises an offline sensor and an inline sensor. The Examiner argued Holub teaches wherein said color sensor comprises an offline sensor (citing Fig. 3A and col. 11 lines 66-67 and col. 12, lines 1-19) and an inline sensor (citing figs. 3B-C, col. 15, lines 42-67 and col. 16, lines 1-24). The Examiner argued it would have been obvious to modify Shimizu, Mahy, and Terekhov to include the above claimed

limitations of Holub to improve communication, control and quality of color reproduction (citing col. 3, lines 3-15 without citing which reference).

The Applicant respectfully disagrees with this assessment. Particularly, the Applicant strongly disagrees col. 11, line 65 –col. 12, line 19 ever discusses an offline sensor as the Examiner claims. The material cited gives a generalized overview of the system of nodes used in that invention. While the Applicant assumes this is the material to which the Examiner is referring, the Applicant still asserts this does not teach an offline sensor in any capacity.

Likewise, the material the Examiner cites to teach an inline sensor does not read on the present invention. The reference describes a sensor "built in" to a rendering device. The inline sensor, described in the present invention is not built into a rendering device. The reference goes on to explain the preferred method of such a sensor is a faceplate for a computer screen. This has literally no relation to the technology being described in the present invention. The inline sensor described in the present invention is intended to be an independent element included in the system as described, not a faceplate on a computer screen.

Finally, the Applicant asserts there is no motivation for the inclusion of the sensor described in Holub to Mahy as required to demonstrate prima facie obviousness. The Examiner admits Mahy and Shimizu do not teach an inline or offline color sensor. This is specifically because the art in Mahy operates without the need for such a sensor. In fact, the Examiner has admitted Mahy only teaches a mathematical model (see rejection of claim 10 where Examiner states "Mahy discloses an example mathematical model…"). Thus, the Examiner is at least required to explain how the inclusion of an inline sensor would improve the mathematical model described in Mahy.

In addition, the operation described in Shimizu would not benefit from the inclusion of an inline v. offline sensor as described by Applicant's invention, its function only requires a sensor generally. That means the technique described in Mahy and Shimizu would not be improved by adding

an inline or offline sensor. Thus, one skilled in the art would have no motivation to incorporate the Holub sensor in Shimizu or Mahy.

In addition, there is not a reasonable expectation of success as required for a showing of prima facie obviousness. The addition of a sensor to Mahy would add nothing to the invention because that process already functions independent of a sensor. In other words, including a sensor, inline or offline, in a mathematical model <u>does not yield anything but a sensor sitting next to a mathematical model.</u> By contrast the use of the sensor as described in claims 7 and 8 is an essential component in the iterative process (another feature both Mahy and Shimizu lack) by which the invention operates. Simply put, adding a sensor to Mahy would not improve or change the functionality of that invention. In addition, the Examiner cites "improve[d] communication, control and quality of color reproduction as motivation for the inclusion of the Holub sensor in Shimizu. However, the Examiner has failed to explicitly explain <u>how</u> the inclusion of an inline or offline sensor in the Shimizu reference would improve its function over the sensor already used, as required by the holding in *KSR Int'l v. Teleflex Inc.* how would including an inline or offline sensor in Shimizu change the functionality of that invention? There is no reasonable expectation that the combination of the Holub sensor with the Mahy or Shimizu invention would successfully produce Applicant's invention. The Examiner's standard explanation that this combination would provide "improved controls for colors of certain L*a*b values" and that they could be "implemented for one another with predictable results" still fails to offer the essential "how" explanation required under the holding in *KSR Int'l v. Teleflex Inc.*

Shimizu in view of Mahy and further in view of Holub

Claims 13-14 and 17-18 stand rejected under 35 USC 103(a) as being unpatentable over Shimizu in view of Mahy, , and further in view of Holub.

Regarding claim 13, the Examiner admitted Shimizu does not teach a transformation module further comprises a compensation module for

reducing said three-dimensional order to a two-dimensional order using a standard International Color Consortium (ICC) framework. The Examiner argued Mahy teaches such a transformation module (citing col. 12, lines 19-32).

The Examiner argued Holub teaches compensation using a standard ICC framework (arguing "compensation function LUTs to compensate for any non-linearities between light intensity, citing col. 20, lines 4-34, and using the internationally accepted standard, col. 44, lines 65-66).

The Examiner therefore argued it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Shimizu to include said transformation module further comprising a transformation module for reducing said three-dimensional order to a two-dimensional order taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (citing col. 4, lines 17-43), and then to modify the aforementioned combination with the claimed teaching of Holub above. The Examiner argued the motivation for this combination is to compensate color value difference with a well recognized standard which quantifies color in terms of what normal humans see, rather than in terms of a specific samples or instances of color produced by particular equipment, so that a predictable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. The cited passage lacks any reference to a "compensation module" as taught by Applicant's invention, or a description of any method or system at all. In fact, the cited passage lacks any insight into the art taught by Mahy. Rather, it is a simple description of the mathematical constructs of a color gamut. This is highlighted by the fact that this section of the Mahy reference is titled "Color Gamut Description" not "compensation module for order reduction". The Applicant respectfully requests the Examiner offer some explanation of how a section of text titled "Color Gamut Description" could ever teach a transformation module as claimed. The Applicant respectfully asserts Mahy fails to teach such a module.

The Applicant further believes the fact that the Examiner has cited the same material to teach both a transformation module and a compensation module is highly indicative of the fact that the reference teaches neither of these elements. Indeed, both these limitation are claimed separately because they are different, therefore, an independent teaching of each is necessary.

The cited language in Mahy cannot be construed to teach or suggest a "transformation module", which is defined by Mahy as a mathematical function that expresses color value (col. 1, lines 44-50 of Mahy). This means even by the standard defined in Mahy, this is not a "transformation module" and certainly not a "compensation module" as claimed. Being that there is no discussion in col. 12, lines 19-23 of Mahy, of any manifestation of a transformation module, or said module operating to reduce a three-dimensional order to a two-dimensional order. the Applicant asserts Mahy does not teach or suggest the limitations of claim 13 necessary to establish prima facie obviousness.

Regarding the Examiner's argument that Holub teaches compensation using standard ICC framework, the Applicant is not claiming the "option of converting color transformational components of the Virtual Proof into standardized file formats"; rather the Applicant is claiming a compensation module for reducing said three-dimensional order to a two-dimensional order <u>using a standard International Color Consortium (ICC) framework</u>. The Examiner has once again found words in the reference and matched them up with words in the claims. The fact that the reference and the claims share the words "International Color Consortium" is not enough to establish that the references teach a compensation module <u>that uses an ICC framework to convert a three-dimensional order to a two dimensional order</u>. The context of the reference to the ICC in Holub is completely removed from any notion even slightly comparable to that being described in claim 13.

Further, the Examiner has cited col. 4, lines 17-43 in an effort to establish a motivation for the combination of Mahy and Shimizu. The Examiner claims such a combination is obvious because it helps to determine

the exact boundaries of a color gamut resulting in the control of out-of-gamut memory and index colors. The Examiner has still failed to establish what suggests the inclusion of the mathematical model in Mahy would yield an improvement to Shimizu. First, including a mathematical model in any invention would not produce any result since the model is not a patentable limitation. Further, Shimizu is not designed to make use of order reduction therefore including an order reducing transformation in Shimizu would not improve that invention. The cited language offers absolutely no explanation of how the order reduction described in claim 13 would improve the Shimizu invention, as required by the holding in KSR Int'l v. Teleflex Inc.

Likewise the references lack any discussion of the motivation for the combination of Holub with the references. The material cited by the Examiner discussing conversion of file formats is so far removed from the material being described in either Mahy or Shimizu it is hard to image a scenario where the cited material could be included in either of those inventions.

Based on the arguments presented above the Applicant respectfully requests the rejection of claims 13, based on 35 USC 103, be withdrawn.

Regarding claim 14, the Examiner admitted that Shimizu does not teach a transformation module which reduces a three-dimensional order to a two-dimensional order in response to determining which colors among said plurality of colors have attained said gamut limit.

The Examiner argued Mahy teaches such a transformation (citing Fig. 3; col. 12, lines 19-32; and col. 14, lines 34-46). Therefore, the Examiner argued it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Shimizu to include a transformation module that reduces a three-dimensional order to said two-dimensional order in response to determining which colors among said plurality of colors have attained said gamut limit taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (citing col. 4, lines 17-43). Therefore, by combining Shimizu with

Mahy, a predicable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. The Applicant argues the transformation described in Mahy is used to determine contours that ultimately are used to define the color gamut. By contrast, the reduction in claim 14 is in response to the dynamic determination of which of a specific plurality of colors has attained a gamut limit. Mahy and claim 14 share a similar means to a different end. The only element the cited language of Mahy and claim 14 actually share is the use of the word "transformation". As explained above, col. 12, lines 19-32 do not describe a transformation module even by the definition of "transformation module" provided by Mahy. The cited language does not describe a transformation module in any capacity.

Finally, the Examiner has cited col. 4, lines 17-43 in an effort to establish a motivation for the combination of Mahy and Shimizu. However, the cited language offers absolutely no explanation of how the order reduction described in claim 13 would improve the Shimizu invention, as required by the holding in KSR Int'l v. Teleflex Inc. The Applicant respectfully asserts this lack of explanation is the same as that described previously.

Therefore, the Applicant argues all the limitations of claim 14 are not taught or suggested by Mahy and that claim 14 is therefore not obvious. The Applicant respectfully requests, in light of the above argument, that the rejection of claim 14, based on 35 USC 103, be withdrawn.

Regarding claims 17 and 18, the Examiner admitted Shimizu and Mahy fail to teach a color sensor comprised of an offline sensor and an inline sensor.

The Examiner argued "Holub teaches wherein said color sensor comprises an offline sensor (citing Fig. 3A, col. 11, lines 66-67; and col. 12, lines 1-19) and an inline sensor (citing Fig. 3B, col. 15, lines 42-67; and col. 16, lines 1-24)".

The Examiner argued it would have been obvious to one skilled in the art at the time of the invention to modify Shimizu and Mahy to include an offline and an inline sensor taught by Holub to improve communication, control and quality of color reproduction (citing col. 3, lines 3-15). The Examiner therefore argued by combining Shimizu and Mahy with Holub, a predictable success of controlling out-of-gamut memory and index color can be achieved.

The Applicant respectfully disagrees with this assessment. The Applicant respectfully asserts the arguments made in favor of claims 7 and 8 apply equally against the rejections of claims 17 and 18. The Applicant respectfully requests the rejection of claims 17 and 18 based on 35 U.S.C. §103 be withdrawn.

III. Conclusion

In view of the foregoing discussion, the Applicant has responded to each and every rejection of the Official Action. The Applicant has clarified the structural distinctions of Applicant's invention via the discussion provided herein. Applicant respectfully requests the withdrawal of the rejections under 35 U.S.C. §103 based on the preceding remarks. Reconsideration and allowance of Applicant's application is also respectfully solicited.

Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact the undersigned representative to conduct an interview in an effort to expedite prosecution in connection with the present application.

Respectfully submitted,

Kermit Lopez

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Kermit Lopez
Attorney for Applicants
Registration No. 41,953
ORTIZ & LOPEZ, PLLC
P.O. Box 4484
Albuquerque, NM 87196-4484
Tel. (505) 314-1312